

REMARKS

Claims 1 through 10 and 14 through 16 are pending in this Application. Claims 1 through 4 and 6 through 10 have been amended, new claims 14 through 16 added and claims 11 through 13 cancelled. Care has been exercised to avoid the introduction of new matter. Indeed, adequate descriptive support for the present Amendment should be apparent throughout the original filed disclosure. Applicants submit that the present Amendment does not generate any new matter issue.

Claims 1 through 3, 6, 8, 9 and 11 through 13 were rejected under 35 U.S.C. §103 for obviousness predicated upon Yamabayashi et al.

In the statement of the rejection the Examiner admitted that Yamabayashi et al. do not disclose the use of a flip-chip technique. Nevertheless, without the citation of any objective evidence, the Examiner concluded that the claimed invention would have been obvious. This rejection is traversed.

Applicant submits that the imposed rejection under 35 U.S.C. § 103 is improper for lack of the requisite factual basis and want of the requisite realistic motivation. Specifically, there are fundamental differences between the claimed optical module and that disclosed by Yamabayashi et al. that undermine the obviousness conclusion. Moreover, the Examiner committed legal error in attempting to establish the requisite motivation without providing a factual basis.

Insufficient facts.

The present invention relates to a semiconductor laser module. The present invention addresses a space problem by strategically positioning the laser diode and the driver IC for

driving the laser diode as close as possible. The solution to this particular strategic space saving arrangement is completely different from the approach adopted by Yamabayashi et al.

Applicant notes that in accordance with the present invention, as in Yamabayashi et al., respective photodiodes (PD) are disposed behind the driver (IC) with respect to the laser diode (LD). In other words, the LD and the PD sandwich the driver IC therebetween. This is where the similarity ends. According to Yamabayashi et al., the optical path is defined between the LD and the PD which is **beneath** the driver IC. **Not** so in accordance with the present invention, because the optical path is **above** the driver IC. The light from the LD passes through the space formed **above** the driver IC.

Applicants stress that because of the arrangement disclosed by Yamabayashi et al., the light-reflecting surface must be **beneath** the PD. **In contradistinction to Yamabayashi et al., in accordance with the present invention, the light from the LD passes in the space spreading above the top surface of the driver IC opposite to the bottom surface facing the bench.** Therefore, in accordance with present invention, the level of the first region of the bench measured from the substrate, where the driver IC is mounted thereon, is **lower** than the level of the second region where the LD is mounted, as specifically recited in independent claim 1. This structure insures securing the space spreading above the top surface IC driver, which is neither disclosed nor suggested by Yamabayashi et al.

The above argued structural differences between the claimed optical module and the optical module disclosed by Yamabayashi et al. are sufficient to undermine the obviousness conclusion. This is because there is **no** apparent factual basis upon which to predicate the conclusion that one having ordinary skill in the art would have been realistically motivated to **dramatically** modify the optical module of Yamabayashi et al. to arrive at the claimed invention

action absent improper reliance upon Applicants disclosure. *Panduit Corp. v. Dennison Mfg. Co.*, 774 F.2d 1082, 227 USPQ 337 (Fed. Cir. 1985).

There is no motivation.

The Examiner did not cite any additional prior art to establish the requisite motivation to modify the particular device disclosed by Yamabayashi et al. by employing a flip-chip technique. Applicants do not dispute the conventionality of a flip-chip technique. But the question is whether a factual basis exists upon which to predicate the conclusion that one having ordinary skill of the art would have been realistically lead to implement such a technique in the **particular** structure disclosed by Yamabayashi et al. As held by the Court of Appeals for the Federal Circuit, regardless of the source motivation, **a factual basis must be provided**. *Teleflex Inc. v. Ficosa North America Corp.*, 299 F.3d 1313, 63 USPQ2d 1374, 1387 (Fed. Cir. 2002). This is because what may or may not be known in general does not necessarily provide the requisite motivation to modify a **specific** piece of prior art in the **specific** manner to arrive at a **specifically** claimed invention. *Ecolochem Inc. v. Southern California Edison, Co.*, 227 F.3d 1361, 56 USPQ2d 1065 (Fed. Cir. 2000); *In re Kotzab*, 217 F.3d 1365, 55 USPQ 1313 (Fed. Cir. 2000); *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999).; *In re Rouffet*, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998). Accordingly, the requisite fact-based motivation for the proposed combination of references has not been established.

Conclusion

Based upon the foregoing it should be apparent that a *prima facie* basis to deny patentability to the claimed invention under 35 U.S.C. § 103 has not been established for lack of

Application No.: 10/667,968

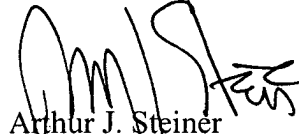
the requisite factual basis and want of the requisite realistic motivation. Applicant, therefore, submits that the imposed rejection of claims 1 through 3, 6, 8, 9 and 11 through 13 under 35 U.S.C. §103 for obviousness predicated upon Yamabayashi et al. its not factually or legally viable and, hence, solicits withdrawal thereof.

Applicant acknowledges, with appreciation, the Examiner's indication that claims 4, 5, 7 and 10 contain allowable subject matter. Based upon the foregoing it should be apparent the imposed rejection has been overcome and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



Arthur J. Steiner
Registration No. 26,106

600 13th Street, N.W.
Washington, DC 20005-3096
Phone: 202.756.8000 AJS:des/bjs/ntb
Facsimile: 202.756.8087
Date: July 11, 2005

**Please recognize our Customer No. 20277
as our correspondence address.**